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Substitute for form 1449A/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)			Complete if Known		
			Application Number		
			Filing Date <u>March 4, 2004</u>		
			First Named Inventor <u>Juan Manuel CRUZ-HERNANDEZ</u>		
			Group Art Unit		
Examiner Name					
Sheet	1	of	1	Attorney Docket Number <u>IMMR-063/00US</u>	

PTO/SB/08A (08-00)

U.S. PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY		
		Number	Kind Code ² (if known)				
<u>NKI</u>	A1	6,078,126		Rollins et al	06/20/2000		
	A2	5,945,772		Macnak et al	08/31/1999		
	A3	5,894,263		Shimakawa et al	04/13/1999		
<u>NKI</u>	A4	5,436,622		Gutman et al	07/25/1995		
	A5	5,245,245		Goldenberg et al	09/14/1993		
FOREIGN PATENT DOCUMENTS							
Examiner Initials*	Cite No. ¹	Foreign Patent Document			Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	T ⁶
		Office ³	Number ⁴	Kind Code ⁵ (if known)			

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS					
Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.			T ²
<u>NKI</u>	C1	Raquet, "Vibration analysis for beams", <i>Memorandum to MEGR 3152 class</i> , Chapter 6, pp. 1 - 12			
<u>NKI</u>	C2	Kashani, "Tuned Mass Dampers and Vibration Absorbers," www.deicon.com , pp. 1 - 5			
<u>NKI</u>	C3	Malatkar, "Nonlinear Vibrations of Cantilever Beams and Plates," <i>Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Engineering Mechanics</i> , July 3, 2003, pp. 1 - 112			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

196746 v1/RE

47T601!.DOC

¹ Unique citation designation number.

² See attached Kinds of U.S. Patent Documents.

³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3).

⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document.

⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible.

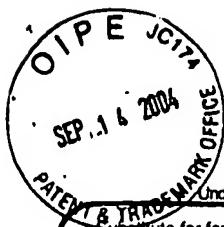
⁶ Applicant is to place a check mark here if English language Translation is attached.

¹ Unique citation designation number.

² Applicant is to place a check mark here if English language Translation attached.

/Vincent Kovalick/

07/09/2007



PTO/SB/08A (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 1 of 10

Complete if Known

Application Number	10/792,279
Filing Date	March 4, 2004
First Named Inventor	Juan Manuel CRUZ-HERNANDEZ
Art Unit	2675
Examiner Name	Not Yet Assigned
Attorney Docket Number	IMMR063/00

U.S. PATENT DOCUMENTS					
Examiner	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
NK/		6,585,595	07-01-2003	Soma	
↑		6,433,771	08-2002	Yocum et al.	
		6,424,333	07-23-2002	Tremblay	
		6,422,941	7/23/2002	Thomer et al.	
		6,317,032	11-13-2001	Oishi	
		6,275,213	08-14-2001	Tremblay	
		6,211,861	04-03-2001	Rosenberg	
		6,198,206	03-06-2001	Saarmaa	
		6,184,868	02-06-2001	Shaholian	
		6,181,318	01-2001	Lim	
		6,160,489	12/12/2000	Perry et al.	
		6,111,577	8/29/2000	Zilles et al.	
		6,104,158	08-15-2000	Jacobus	
		6,088,019	07-11-2000	Rosenberg	
		6,088,017	07-11-2000	Tremblay	
		6,078,126	06-20-2000	Rollins	
		6,046,726	04-2000	Keyson	
		6,044,646	04-04-2000	Silverbrook	
		6,004,134	12-21-1999	Marcus	
		6,001,014	12-14-1999	Ogata	
		5,986,643	11-16-1999	Harvill	
		5,984,880	11-16-1999	Lander	
		5,973,670	10-26-1999	Barber	
		5,945,772	08-31-1999	Macnak	
		5,914,705	06-22-1999	Johnson	
		5,914,705	06-1999	Johnson et al.	
		5,897,437	04-27-1999	Nishiumi	
		5,894,263	04-13-1999	Shimakawa	
		5,889,672	03-30-1999	Schuler	
		5,857,986	01-12-1999	Moriyasu	
		5,828,363	10-1998	Yaniger et al.	
NK/		5,805,140	09-08-1998	Rosenberg	
		5,790,108	08-04-1998	Salcudean	

Examiner Signature	Nincent Kovalick/	Date Considered	07/09/2007
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Substitute for form 1449A/PTO		Complete if Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (use as many sheets as necessary)		Application Number	10/792,279
		Filing Date	March 4, 2004
		First Named Inventor	Juan Manuel CRUZ-HERNANDEZ
		Art Unit	2675
		Examiner Name	Not Yet Assigned
Sheet 2 of 10	Attorney Docket Number	IMMR063/00	

U.S. PATENT DOCUMENTS					
Examiner	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
NK/		5,785,630	07/28/1998	Bobick, et al.	
		5,784,052	07-21-1998	Keyson	
		5,781,172	07-14-1998	Engel	
		5,766,016	06/16/1998	Sinclair et al.	
		5,754,023	05-19-1998	Roston	
		5,742,278	04-21-1998	Chen	
		5,739,811	04-14-1998	Rosenberg	
		5,736,978	04-07-1998	Hasser	
		5,734,373	03-31-1998	Rosenberg	
		5,714,978	02-03-1998	Yamanaka	
		5,709,219	01-20-1998	Chen	
		5,690,582	11/25/1997	Ulrich et al.	
		5,689,285	11-1997	Asher	
		5,684,722	11-04-1997	Thomer	
		5,669,818	09-23-1997	Thomer	
		5,661,446	08-26-1997	Anderson	
		5,643,087	07-01-1997	Marcus	
		5,631,861	05-20-1997	Kramer	
		5,619,180	04-08-1997	Massimino	
		5,589,828	12-31-1996	Armstrong	
		5,589,828	12-1996	Armstrong	
		5,587,937	12-24-1996	Massie	
		5,583,478	12-10-1996	Renzi	
		5,580,251	12-03-1996	Gilkes	
		5,575,761	11/19/1996	Hajianpour	
		5,565,840	10-15-1996	Thomer	
		5,547,382	08/20/1996	Yamasaki et al.	
		5,466,213	11/14/1995	Hogan et al.	
		5,440,183	08-08-1995	Denne	
		5,437,607	8/1/1995	Taylor	
		5,436,622	7/25/1995	Gutman et al.	
		5,405,152	04-11-1995	Katanics	
NK/		5,399,091	03-21-1995	Mitsumoto	

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**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

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Sheet **3** of **10****Complete if Known**

Application Number	10/792,279
Filing Date	March 4, 2004
First Named Inventor	Juan Manuel CRUZ-HERNANDEZ
Art Unit	2675
Examiner Name	Not Yet Assigned
Attorney Docket Number	IMMR063/00

U.S. PATENT DOCUMENTS					
Examiner	Cite No. ¹	Document Number Number Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
NK/		5,388,992	02-14-1995	Franklin	
A		5,354,162	10-11-1994	Burdea	
		5,334,027	08/02/1994	Wherlock	
		5,309,140	05/03/1994	Everett, Jr., et al.	
		5,299,810	04/05/1994	Pierce et al.	
		5,296,871	03-22-1994	Paley	
		5,283,970	2/8/1994	Aigner	
		5,275,174	01/04/1994	Cook	
		5,271,290	12/21/1993	Fischer	
		5,261,291	11-1993	Schoch et al.	
		5,240,417	08/31/1993	Smithson et al.	
		5,227,594	07-1993	Russo	
		5,212,473	05/18/1993	Louis	
		5,203,563	04-20-1993	Loper, III	
		5,186,695	2/16/1993	Mangseth et al.	
		5,186,629	02-16-1993	Rohen	
		5,184,319	02-02-1993	Kramer	
		5,175,459	12/29/1992	Danial et al.	
		5,172,092	12-15-1992	Nguyen et al.	
		5,165,897	11/24/1992	Johnson	
		5,146,566	09-08-1992	Hollis Jr.	
		5,107,282	04-21-1992	Cadoz	
		5,103,404	04-07-1992	McIntosh	
		5,078,152	01/07/1992	Bond et al.	
		5,038,089	08/08/1991	Szakaly	
		5,035,242	07/30/1991	Franklin et al.	
		5,022,407	06/11/1991	Horch et al.	
		5,022,384	6/11/1991	Freels	
		5,019,761	05/28/1991	Kraft	
		4,934,694	06/19/1990	McIntosh	
		4,930,770	06/05/1990	Baker	
		4,891,764	01/02/1990	McIntosh	
NK/		4,885,565	12/5/1989	Embach	

Examiner Signature	Vincent Kovalick/	Date Considered	07/09/2007
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Sheet **4** of **10****Complete if Known**

Application Number	10/792,279
Filing Date	March 4, 2004
First Named Inventor	Juan Manuel CRUZ-HERNANDEZ
Art Unit	2675
Examiner Name	Not Yet Assigned
Attorney Docket Number	IMMR063/00

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NK/		4,885,585	12-05-1989	Embach	
A		4,868,549	09-19-1989	Merril	
		4,795,298	01-03-1989	Jau	
		4,794,392	12/27/1988	Selinko	
		4,731,603	03-15-1988	McRae	
		4,713,007	12/15/1987	Alban	
		4,708,656	11/24/1987	de Vries et al.	
		4,706,294	11-10-1987	Ouchida	
		4,599,070	07/08/1986	Hladky et al.	
		4,581,491	04/08/1986	Boothroyd	
		4,513,235	04/23/1985	Acklam et al.	
		4,484,191	11/20/1984	Vavra	
		4,473,725	09-1984	Kim	
		4,464,117	8/7/1984	Foerst	
		4,459,440	07-1984	Wiczer	
		4,414,984	11-15-1983	Zarudiansky	
		4,382,166	05-1993	Kim	
		4,333,070	6/1/1982	Barnes	
		4,262,549	4/21/1981	Schwellenbach	
		4,236,325	12/02/1980	Hall et al.	
		4,127,752	11/28/1978	Lowthorp	
		4,160,508	07/10/1979	Salisbury, Jr.	
		3,919,691	11-11-1975	Noll	
		3,911,416	10/07/1975	Feder	
		3,903,614	09/09/1975	Diamond et al.	
		3,902,687	09/02/1975	Hightower	
		3,623,064	11/23/1971	Kagan	
		3,517,446	06/30/1970	Corlyon et al.	
		3,497,668	02/24/1970	Hirsch	
		3,220,121	11/30/1965	Cutler	
		3,157,853	11/17/1964	Hirsch	
		2002/0142701	10-2002	Rosenberg	
NK/		2002/0030663	03-14-2002	Tierling	

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/Vincent Kovalick/

Date

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet	5	of	10
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Application Number	10/792,279
Filing Date	March 4, 2004
First Named Inventor	Juan Manuel CRUZ-HERNANDEZ
Art Unit	2675
Examiner Name	Not Yet Assigned
Attorney Docket Number	IMMR063/00

U.S. PATENT DOCUMENTS

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Signature**

Vincent Kovalick/

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Art Unit	2675
Examiner Name	Not Yet Assigned
Attorney Docket Number	IMMR063/00

(use as many sheets as necessary)

Sheet	6	of	10
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OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	
NKJ		PATRICK, "Design, Construction, and Testing of a Fingertip Tactile Display for Interaction with Virtual and Remote Environments," <i>Master of Science Thesis</i> , MIT, Aug. 1990, archived Nov. 8, 1990.	
NKJ		CALDER, "Design of A Force-Feedback Touch-Introducing Actuator For Teleoperator Robot Control," <i>Bachelor of Science Thesis</i> , MIT, May 1983, archived June 23, 1983.	
NKJ		WIKER, "Teletouch Display Development: Phase 1 Report," <i>Technical Report 1230</i> , Naval Ocean Systems Center, San Diego, July 1988.	
NKJ		BLISS, "Optical-to-Tactile Image Conversion for the Blind," <i>IEEE Transactions on Man-Machine Systems</i> , Vol. MMS-11, No. 1, March 1970.	
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**INFORMATION DISCLOSURE
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Sheet **7** of **10****Complete if Known**

Application Number	10/792,279
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First Named Inventor	Juan Manuel CRUZ-HERNANDEZ
Art Unit	2675
Examiner Name	Not Yet Assigned
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OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
NKI		JOHNSON, "Shape-Memory Alloy Tactile Feedback Actuator," <i>Armstrong Aerospace Medical Research Laboratory</i> , AAMRL-TR-90-039, August, 1990.
NKI		KONTARINIS et al., "Tactile Display of Vibratory Information in Teleoperation and Virtual Environments," PRESENCE, 4(4):387-402, Harvard Univ., 1995.
↑		AUKSTAKALNIS et al., "Silicon Mirage: The Art and Science of Virtual Reality," ISBN 0-938151-82-7, pp. 129-180, 1992.
		EBERHARDT et al., "Inducing Dynamic Haptic Perception by The Hand: System Description and Some Results," DSC-Vol. 55-1, <i>Dynamic Systems and Control</i> : Volume 1, ASME 1994.
		GOBEL et al., "Tactile Feedback Applied to Computer Mice," <i>International Journal of Human-Computer Interaction</i> , Vol. 7, No. 1, pp. 1-24, 1995.
		PIMENTEL et al., "Virtual Reality: through the new looking glass," 2 nd Edition; McGraw-Hill, ISBN 0-07-050167-X, pp. 41-202, 1994.
		"Cyberman Technical Specification," <i>Logitech Cyberman SWIFT Supplement to Logitech Mouse Technical Reference and Programming Guide</i> , 4/5/1994.
		OUHYOUNG et al., "The Development of A Low-Cost Force Feedback Joystick and Its Use in the Virtual Reality Environment," <i>Proceedings of the Third Pacific Conference on Computer Graphics and Applications, Pacific Graphics '95</i> , Seoul, Korea, 21-24 August 1995.
		KACZMAREK et al., "Tactile Displays," <i>Virtual Environment Technologies</i> , Chap. 9, pp. 349-414.
		LAKE, "Cyberman from Logitech," at http://www.ibiblio.org/GameBytes/issue21/greviews/cyberman.html , 1994.
		"Component Maintenance Manual With Illustrated Parts List, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 28 January 2002 (3 pages).
NKI		"Technical Manual Overhaul Instructions With Parts Breakdown, Coaxial Control Shaker Part No. C-25502," Safe Flight Instrument Corporation, Revised 15 July 1980 (23 pages).
NKI		SCANNELL, "Taking a Joystick Ride," <i>Computer Currents</i> , Boston Edition, Vol. 9, No. 11, November 1994

Examiner Signature	Vincent Kovalick/	Date Considered	07/09/2007
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Sheet **8** of **10****Complete if Known**

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First Named Inventor	Juan Manuel CRUZ-HERNANDEZ
Art Unit	2675
Examiner Name	Not Yet Assigned
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NKI		YAMAKITA et al., "Tele-Virtual Reality of Dynamic Mechanical Model," <i>Proceedings of the 1992 IEEE/RSJ International Conference on Intelligent Robots and Systems</i> , Raleigh, NC, July 7-10, 1992
NKI		NOLL, "Man-Machine Tactile," <i>SID Journal</i> , July/August 1972 Issue.
↑		ROSENBERG, "Virtual Fixtures: Perceptual Overlays Enhance Operator Performance In Telepresence Tasks," <i>Ph.D. Dissertation</i> , Stanford University, June 1994.
		Baigrie, "Electric Control Loading – A Low Cost, High Performance Alternative," <i>Proceedings of Interservice/Industry Training Systems Conference</i> , pp. 247-254, November 6-8, 1990
		Iwata, "Pen-based Haptic Virtual Environment," 0-7803-1363-1/93 IEEE, pp. 287-292, 1993
		Russo, "The Design and Implementation of a Three Degree of Freedom Force Output Joystick," <i>MIT Libraries Archives</i> pp. 1-131, May 1990, archived 8/14/90
		Brooks et al., "Hand Controllers for Teleoperation - A State-of-the-Art Technology Survey and Evaluation," <i>JPL Publication 85-11</i> , NASA-CR-175890; N85-28559, pp. 1-84, 03/1/1985
		Jones et al., "A perceptual analysis of stiffness," ISSN 0014-4819 Springer International (Springer-Verlag); <i>Experimental Brain Research</i> , Vol. 79, No. 1, pp. 150-156, 1990
		Burdea et al., "Distributed Virtual Force Feedback, Lecture Notes for Workshop on Force Display in Virtual Environments and its Application to Robotic Teleoperation," <i>1993 IEEE International Conference on Robotics and Automation</i> , pp. 25-44, 05/02/1993
		Snow et al., "Model-X Force-Reflecting-Hand-Controller," NT Control No. NPO-17851; JPL Case No. 7348, pp. 1-4 with 45 pages of attachments, 06/15/1989
		Ouh-Young, "Force Display in Molecular Docking," <i>Doctoral Dissertation</i> , University of North Carolina at Chapel Hill, UMI Order No. 9034744, p. 1-369, 1990
NKI		Tadros, "Control System Design for a Three Degree of Freedom Virtual Environment Simulator Using Motor/Brake Pair Actuators," <i>MIT Archive</i> , pp. 1-88, February 1990, archived 8/13/90
NKI		Caldwell et al., "Enhanced Tactile Feedback (Tele-Taction) Using a Multi-Functional Sensory System," 1050-4729/93, pp. 955-960, 1993

Examiner Signature	Vincent Kovalick/	Date Considered	07/09/2007
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Sheet 9

of 10

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Application Number	10/792,279
Filing Date	March 4, 2004
First Named Inventor	Juan Manuel CRUZ-HERNANDEZ
Art Unit	2675
Examiner Name	Not Yet Assigned
Attorney Docket Number	IMMR063/00

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
NK/		Adelstein et al., "Design and Implementation of a Force Reflecting Manipulandum for Manual Control research," DSC-Vol. 42, <i>Advances in Robotics</i> , pp. 1-12, 1992
NK/		Gotow et al., "Controlled Impedance Test Apparatus for Studying Human Interpretation of Kinesthetic Feedback," WA11-11:00, pp. 332-337
		Stanley et al., "Computer Simulation of Interacting Dynamic Mechanical Systems Using Distributed Memory Parallel Processors," DSC-Vol. 42, <i>Advances in Robotics</i> , pp. 55-61, ASME 1992
		Russo, "Controlling Dissipative Magnetic Particle Brakes in Force Reflective Devices," DSC-Vol. 42, <i>Advances in Robotics</i> , pp. 63-70, ASME 1992
		Kontarinis et al., "Display of High-Frequency Tactile Information to Teleoperators," <i>Telemanipulator Technology and Space Telerobotics</i> , Won S. Kim, Editor, Proc. SPIE Vol. 2057, pp. 40-50, Sep. 7-9, 1993
		Patrick et al., "Design and Testing of A Non-reactive, Fingertip, Tactile Display for Interaction with Remote Environments," <i>Cooperative Intelligent Robotics in Space</i> , Rui J. deFigueiredo et al, Editor, Proc. SPIE Vol. 1387, pp. 215-222, 1990
		Adelstein, "A Virtual Environment System For The Study of Human Arm Tremor," <i>Ph.D. Dissertation</i> , Dept. of Mechanical Engineering, MIT, June 1989, archived 3/13/90
		Bejczy, "Sensors, Controls, and Man-Machine Interface for Advanced Teleoperation," <i>Science</i> , Vol. 208, No. 4450, pp. 1327-1335, 1980
		Bejczy et al., "Generalization of Bilateral Force-Reflecting Control of Manipulators," <i>Proceedings Of Fourth CISM-IFTOMM</i> , Sep. 8-12, 1981
		McAfee et al., "Teleoperator Subsystem/Telerobot Demonstrator: Force Reflecting Hand Controller Equipment Manual," JPL 1988, JPL D-5172
		Minsky, "Computational Haptics: The Sandpaper System for Synthesizing Texture for a Force-Feedback Display," <i>Ph.D. Dissertation</i> , MIT, June 1995, archived 7/6/95
NK/		Jacobsen et al., "High Performance, Dexterous Telerobotic Manipulator With Force Reflection," <i>Intervention/ROV '91 Conference & Exposition</i> , Hollywood, Florida, May 21-23, 1991
NK/		Shlmoga, "Finger Force and Touch Feedback Issues in Dexterous Telemanipulation," <i>Proceedings of Fourth Annual Conference on Intelligent Robotic Systems for Space Exploration</i> , Rensselaer Polytechnic Institute, Sep. 30- Oct. 1, 1992

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NKJ		IBM Technical Disclosure Bulletin, "Mouse Ball-Actuating Device With Force and Tactile Feedback," Vol. 32, No. 9B, February 1990	
NKJ		Terry et al., "Tactile Feedback In A Computer Mouse," <i>Proceedings of Fourteenth Annual Northeast Bioengineering Conference, University of New Hampshire</i> , March 10-11, 1988	
↑		Howe, "A Force-Reflecting Teleoperated Hand System for the Study of Tactile Sensing in Precision Manipulation," <i>Proceedings of the 1992 IEEE International Conference on Robotics and Automation</i> , Nice, France, May 1992	
		Eberhardt et al., "OMAR - A Haptic display for speech perception by deaf and deaf-blind individuals," <i>IEEE Virtual Reality Annual International Symposium</i> , Seattle, WA, Sep. 18-22, 1993	
		Rabinowitz et al., "Multidimensional tactile displays: Identification of vibratory intensity, frequency, and contractor area," <i>Journal of The Acoustical Society of America</i> , Vol. 82, No. 4, October 1987	
		Bejczy et al., "Kinesthetic Coupling Between Operator and Remote Manipulator," <i>International Computer Technology Conference, The American Society of Mechanical Engineers</i> , San Francisco, CA, August 12-15, 1980	
		Bejczy et al., "A Laboratory Breadboard System For Dual-Arm Teleoperation," <i>SOAR '89 Workshop</i> , JSC, Houston, TX, July 25-27, 1989	
		Ouhyoung et al., "A Low-Cost Force Feedback Joystick and Its Use in PC Video Games," <i>IEEE Transactions on Consumer Electronics</i> , Vol. 41, No. 3, August 1995	
NKJ		Marcus, "Touch Feedback In Surgery," <i>Proceedings of Virtual Reality and Medicine The Cutting Edge</i> , Sep. 8-11, 1994	
NKJ		Bejczy, et al., "Universal Computer Control System (UCCS) For Space Telerobots," CH2413-3/87/0000/0318501.00 1987 IEEE, 1987	

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